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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/817,057	04/02/2004	Earl F. Crandall	033859-009	2666

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EXAMINER

SHALLENBERGER, JULIE ANN

ART UNIT	PAPER NUMBER
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2875

DATE MAILED: 11/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/817,057

Applicant(s)

CRANDALL, EARL F.

Examiner

Julie A. Shallenberger

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 4/2/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Drawing Objections

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the side view with the mirrors, bulbs and pipes must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

The applicant needs to submit drawings that show side views of the claimed invention in order to better illustrate the arrangement to the elements in the claimed invention.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner,

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the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

Claim 12 is objected to because of the following informalities: The word "form" should be --from--.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, and 4 are rejected under 35 U.S.C. 102(b) as being anticipated by Greif (5,743,628). Greif teaches a gas discharge lamp with a plurality of gas discharge bulbs 7,8,9,10 arranged around a perimeter defining a middle region with a reflective mirror 24 in the middle region as shown in figures 2a and 2b. The bulbs 7,8,9, and 10 are arranged in a circular perimeter as claimed in 2 and the reflective mirror 24 is circular as claimed in 4.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Greif in view of Tickner (5,377,086).

Greif teaches all the elements of independent claim 1, but lacks the teaching of the U-shaped bulbs as in claim 3. Tickner teaches the use of U-shaped bulbs. It would have been obvious to one of ordinary skill at the time of the invention to combine Greif's discharge lamp with the U-shaped bulbs of Tickner's lamp in order to provide more light.

Claims 5, 7, and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grief in view of Wordin (6,170,962).

Greif lacks the specific teaching of parabolic and hyperbolic shaped mirrors. Wordin teaches a florescent light source with parabolic mirrors to produce direct light straight downward in column 2 lines 17-25. Wordin also teaches the pairing of two hyperbolic mirrors 103 and 104 as shown in figure 2. It would have been obvious to one of ordinary skill in the art at the time of the invention to use the discharge lamp taught by Grief and modify the reflectors as taught by Wordin in order to produce an intended direction of light.

Claims 6 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grief in view of Wordin (6,170,962) and further in view of Tickner.

Grief teaches the gas discharge lamp and Wordin teaches the pairing of hyperbolic mirrors, but their combined teachings lack the use of U-shaped bulbs. Tickner teaches the use of U-shaped bulbs. It would have been obvious to one of ordinary skill in the art at the time of the invention to use the discharge lamp taught by Grief with the reflectors taught by Wordin in order to produce an intended direction of light and use U-shaped bulbs taught by Tickner in order to produce more light.

Claims 10,11,13, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Davenport (5,675,677) in view of Brown (2003/0067790). Davenport teaches a gas discharge bulb 118 on a base with light pipes 140a-140c positioned in the middle to redirect light outward, but lacks the teaching of multiple discharge lamps arranged around a circular perimeter of the base as claimed in 14. Brown teaches multiple lamps 14 positioned around a base with a middle region containing a light pipe 24 of smaller bundle fibers as claimed in 11. Davenport also teaches the use of a metal coating 116 in column 3 lines 30-50. It would be obvious to one of ordinary skill in the art at the time of the invention to combine Browns arrangement of bulbs around the circular perimeter with Davenport's gas discharge lamp and light pipes in order to maximize the amount of light emitted from the lamp.

Claims 12 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Davenport in view of Brown and further in view of Tickner.

Davenport and Brown teach all the elements claimed in independent claim 10, but lack the teaching of U-shaped bulbs. Tickner teaches U-shaped lamps 45 and it would be obvious to one of ordinary skill in the art at the time of the invention to use the lamps of Tickner in the device of Davenport in order to maximize the amount of light emitted.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. McDermott (5,782,553) teaches the use of parabolic and hyperbolic reflectors in a multiple lamp lighting device. Zou (6,186,649) teaches the use of metal coating 106 and light pipes. Nishio (2002/0167264) teaches the use of U-shaped bulbs and a reflector in the middle region. Schroeder (6,318,907) teaches a discharge lamp and a plurality of fiber optic cables bundled together to maximize the emitted light.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julie A. Shallenberger whose telephone number is (571)272-7131. The examiner can normally be reached on Monday - Friday 830-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Renee Luebke can be reached on 571-272-2009. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Julie Shallenberger
Examiner AU 2875


RENEE LUEBKE
PRIMARY EXAMINER